

WAGO **EPSITRON**® - Advanced

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EPSITRON® PRO Power

Single- and three-phase power supplies with a wide input voltage range and 12V, 24V or 48V output voltages; also included are PowerBoost, TopBoost and optional LineMonitor features.

1-phase	(with	TopBoost	and	PowerBoost)	:
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787-818	24 VDC, 3 A	NEW!
787-819	12 VDC, 6 A	
787-821	12 VDC, 10 A	NEW!
787-822	24 VDC, 5 A	
787-831	12 VDC, 15 A	NEW!
787-832	24 VDC, 10 A	
787-833	48 VDC, 5 A	NEW!
787-834	24 VDC, 20 A	
787-835	48 VDC, 10 A	NEW!
3-phase (with TopBo	ost and PowerBoo	st):
787-840	24 VDC, 10 A	
787-842	24 VDC, 20 A	
787-844	24 VDC, 40 A	
787-845	48 VDC, 10 A	
787-847	48 VDC, 20 A	NEW!
3-phase (with TopBo as well as LineMonit		st,
787-850	24 VDC, 10 A	

24 VDC, 20 A 24 VDC, 40 A



EPSITRON® CLASSIC Power

787-852

787-854

Single-phase power supplies with wide input voltage range and 12V, 24V, 30.5V or 48V output voltages.

1-phase:	
787-601	12 VDC, 2 A
<i>787</i> -611	12 VDC, 4 A
787-621	12 VDC, 8 A
787-602	24 VDC, 1.3 A
787-612	24 VDC, 2.5 A
787-622	24 VDC, 5 A
787-632	24 VDC, 10 A
787-613	48 VDC, 1 A
787-623	48 VDC, 2 A
787-633	48 VDC, 5 A
787-692	AS-Interface, 30.5 VDC, 3 A



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EPSITRON® COMPACT Power

Low-profile, single-phase power supplies with wide input voltage range, as well as 12V and 24V output voltages.

1-phase:		
<i>7</i> 8 <i>7</i> -1001	12 VDC, 2 A	NEW!
787-1002	24 VDC, 1.3 A	
<i>7</i> 8 <i>7</i> -1011	12 VDC, 4 A	NEW!
<i>787</i> -1011	24 VDC, 2.5 A	
<i>7</i> 8 <i>7</i> -1022	24 VDC, 4 A	NEW!

Power Supply System



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EPSITRON® -

Electronic Circuit Breakers

Configurable protection via 4-channel electronic circuit breakers, integrated current and voltage monitoring.

787-860	24 VDC, 4x6 A
787-861	24 VDC, 4x8 A, current-limited
787-862	24 VDC, 4x10 A

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EPSITRON® -

Uninterruptible Power Supplies (UPS)

Reliable compensation for longer power failures via UPS charger, controller and connected battery modules.

UPS charger and controller:

	/0/-0/0	24 VDC, max. TO A
	787-875	24 VDC, max. 20 A
Battery module (with built-in temperature sensor):		h built-in temperature sensor):
	787-871	24 VDC, 3.2 Ah
	787-872	24 VDC, 7 Ah

787-872 24 VDC, 7 Ah 787-873 24 VDC, 12 Ah 787-876 24 VDC, 1.2 Ah

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EPSITRON® -

Capacitive Buffer Modules

Reliable operation in the event of short voltage fluctuations via maintenance-free, capacitive buffer modules.

787-880	24 VDC, max. 10 A for 400 ms
<i>787</i> -881	24 VDC, max. 20 A for 400 ms

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EPSITRON®-

Redundancy Modules

Parallel connection of power supplies for higher availability and load current via redundancy module.

787-885	24 VDC, 2x20 A	
	or 1x40 A	
787-886	48 VDC, 2x20 A	
	or 1x40 A	

EPSITRON® PRO Power

Professional and Efficient Power Supplies with Extra Power

Applications with high output requirements call for professional power supplies capable of reliably handling power peaks. These applications call for EPSITRON® PRO Power Supplies, which provide 12V, 24V or 48VDC with nominal output currents of 3A to 40A in a slim vertical- or horizontal-mount housing.

An integrated PowerBoost function provides 200% of the rated current for up to 4 seconds, enabling start-up or switching of capacitive loads, valve clusters or motors.

The TopBoost function provides sufficient power with a multiple of the rated current for up to 50ms, permitting use of standard circuit breakers for output protection. An optional LineMonitor provides easy parameter setting and monitoring of input and output. This eliminates redundant devices, such as phase and frequency monitoring units, as well as operational hour meters in control cabinets. EPSITRON® PRO Power Supplies set a new standard in energy efficiency with up to 93% efficiency and a stand-by mode.



Up to 93% efficiency

PowerBoost, up to 200% output power for 4 seconds

Adjustable output voltage

TopBoost, up to 60A additional reserve for 50ms

LineMonitor for parameter setting and input/output monitoring (optional)





Slim Design and Versatile Mounting Options

Save up to 50% more cabinet space with slim PRO Power Supplies. The DIN-rail mount design maximizes existing space via upright or horizontal mounting.



solid



fine-stranded



ferruled

Fast, Clearly Labeled Connections

CAGE CLAMP® Spring Pressure Connection Technology provides fast, vibration-free and maintenance-free termination of solid, finestranded or ferruled wires.



 Clearly labeled, pluggable female connectors allow for easy cable pre-assembly.

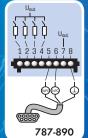


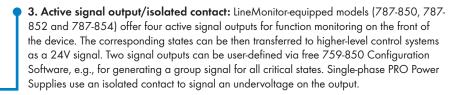
Innovative and Communicative

1. LEDs: A green LED indicates error-free operation. Critical errors (e.g., overload or short-circuit) are indicated by a red LED on the output. Additionally, a yellow LED signals non-critical errors (e.g., phase failure) on PRO Power Supplies equipped with LineMonitor.



2. Display: PRO Power Supplies with integrated LineMonitor have a display and on-unit keys for direct parameter setting and on-site monitoring. In addition to setting the output voltage and overload behavior, it is also possible to set permanent current and voltage monitoring on the output and extensive power monitoring on the input. The device features integrated fault memory for self-diagnostics in the event of errors.







4. RS-232 serial interface: PRO Power Supplies with LineMonitor can communicate with a PC or PLC via front-side serial interface. The 759-851 Software displays all relevant data on a PC; parameter setting is performed via 759-850 Configuration Software.

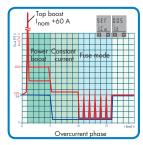


Download both versions free of charge at **www.wago.com/epsitron**. The 787-890 Serial Communication Cable is available as an accessory for connection to the RS-232 interface.

High-Performance and Adaptable

EPSITRON® PRO Power Supplies provide extra power via TopBoost and PowerBoost. In addition, the overload behavior of LineMonitor-equipped models can be adjusted for adaptation to the application.





Overload Behavior

With constant current mode, available in all PRO Power Supplies, output current is limited to 110% of the rated current in case of overload. This can be time-limited via fuse mode in devices equipped with LineMonitor. In fuse mode operation, the output current is switched off cyclically on overload or short circuit to safely prevent overheating due to the sharply reduced power flow.



PowerBoost

During start-up or switching of capacitive loads (valve clusters, motors, etc.), there is an increased need for current. Conventional switch mode power supplies cannot deliver this without PowerBoost due to the limited output current – typically 1.1 times the rated current. In this case, PRO Power Supplies provide power supplies – up to 200% of rated current at 24VDC for up to 4 seconds. This ensures reliable loads operation and eliminates expensive oversizing of switch mode power supplies.



TopBoost

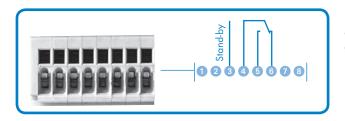
In order for high-speed magnetic miniature circuit breakers to trip, currents that are significantly higher than the rated current are required for a period of 10 to 12 milliseconds. PRO Power Supplies deliver a multiple of the rated current for up to 50ms; this means the faulty circuit can be shut off within milliseconds during a short-circuit. This increases the availability of the entire power supply while fulfilling EN 60204-1 requirements regarding grounding in control circuits.

• **EPSITRON**® PRO Power:

	* * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * *	** \$51.0	** E91 Q
Item Number	787-818	787-819	787-821	787-822
Nominal input voltage	1/2 × 100 - 240 VAC	1/2 × 100 - 240 VAC	1/2 x 100 - 240 VAC	1/2 x 100 - 240 VAC
Input voltage range (use of DC requires external protection)	85 - 264 VAC 120 - 350 VDC	85 - 264 VAC 120 - 350 VDC	85 - 264 VAC 120 - 350 V DC	85 - 264 VAC 120 - 350 VDC
Nominal output voltage	24 VDC, SELV	12 VDC, SELV	12 VDC, SELV	24 VDC, SELV
Output voltage range	22 - 29.5 VDC, adjustable	11 - 18 VDC, adjustable	11 - 18 VDC, adjustable	22 - 29.5 VDC, adjustable
Output current	3 A at 24 VDC	6 A at 12 VDC	10 A at 12 VDC	5 A at 24 VDC
PowerBoost	6 ADC (for 4 s) 4.5 ADC (for 8 s)	12 ADC (for 4 s) 9 ADC (for 8 s)	20 ADC (for 4 s) 15 ADC (for 8 s)	10 ADC (for 4 s) 7.5 ADC (for 8 s)
TopBoost	14 ADC (for 25 ms)	21 ADC (for 25 ms)	60 ADC (for 25 ms) 40 ADC at $\rm U_{IN}$ < 110 VAC (for 25 ms)	21 ADC (for 25 ms)
Can be connected in parallel/series	yes	yes	yes	yes
Efficiency	87.8 % typ.	83 % typ.	87.8 % typ.	87.8 % typ.
Operation status indicator	LED green (Vo), LED red (error)	LED green (Vo), LED red (error)	LED green (Vo), LED red (error)	LED green (Vo), LED red (erro
Indicators	LED green (Vo > 0.85 x 24 V) LED red (Vo < 0.85 x 24 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 12 V) LED red (Vo < 0.85 x 12 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 12 V) LED red (Vo < 0.85 x 12 V) Relay contact DC OK (changeover contact)	LED green (Vo > 0.85 x 24 V) LED red (Vo < 0.85 x 24 V) Relay contact DC OK (changeover contact)
Stand-by input	Switches output off (stand-by operation)			
Ambient operating temperature	-10 °C +70 °C			
Storage temperature	-25 °C +85 °C			
Dimensions (mm) W x H x D** Height from upper-edge of DIN 35 rail	40 x 163 x 163	40 x 163 x 163	57 x 163 x 163	57 x 163 x 163
Weight	800 g	800 g	1100 g	1100 g
Standards/Specifications	EN 60950, EN 61204-3, UL 60950, UL 508			

^{**} D=127mm, without pluggable female connectors

Potential-Free Signal Contact and Stand-By Input



In the event of undervoltage at the output, the internal relay is deactivated. This error is signaled via a **potential-free changeover contact** (rated 1A at 30VDC).

^{*} pending

Technical Data



By applying an external 10-28.8VDC voltage at the **stand-by input**, the output is switched off (wear-free) and the power supply remains on energy-saving stand-by with maximum 0.8W power dissipation. The stand-by input allows targeted switch-off of distributed power supplies without requiring additional switching relays.

EPSITRON® PRO Power

	* E	* 121 Q	** IZIO W 128
Item Number	787-840	787-842	787-844
Nominal input voltage	2/3 x 400 - 500 VAC	2/3 x 400 - 500 VAC	2/3 x 400 - 500 VAC
Input voltage range (use of DC requires external protection)	340 - 550 VAC 480 - 780 VDC	340 - 550 VAC 480 - 780 VDC	340 - 550 VAC 480 - 780 VDC
Nominal output voltage	24 VDC, SELV	24 VDC, SELV	24 VDC, SELV
Output voltage range	22.8 - 28.8 VDC, adjustable	22.8 - 28.8 VDC, adjustable	22.8 - 28.8 VDC, adjustable
Output current	10 A at 24 VDC	20 A at 24 VDC	40 A at 24 VDC
PowerBoost	20 ADC (for 4 s) 15 ADC (for 8 s)	40 ADC (for 4 s) 30 ADC (for 8 s)	60 ADC (for 4 s) 50 ADC (for 16 s)
TopBoost	70 ADC (for 50 ms)	80 ADC (for 50 ms)	100 ADC (for 50 ms)
Can be connected in parallel/series	yes	yes	yes
Efficiency	91.7 % typ.	92.9 % typ.	93.6 % typ.
Operation status indicator	LED green (Vo), LED red (error)	LED green (Vo), LED red (error)	LED green (Vo), LED red (error)
Indicators	LED green (Vo > 20.4 V) LED red (Vo < 20.4 V) Relay contact DC OK (changeover contact)	LED green (Vo > 20.4 V) LED red (Vo < 20.4 V) Relay contact DC OK (changeover contact)	LED green (Vo > 20.4 V) LED red (Vo < 20.4 V) Relay contact DC OK (changeover contact)
LineMonitor, parameter setting and monitoring, active signal outputs, serial interface	-	-	-
Stand-by input	Switches output off (stand-by operation)	Switches output off (stand-by operation)	Switches output off (stand-by operation)
Ambient operating temperature	-10 °C +70 °C	-10 °C +70 °C	-10 °C +55 °C
Storage temperature	-25 °C +85 °C	-25 °C +85 °C	-25 °C +85 °C
Dimensions (mm) W x H x D** Height from upper-edge of DIN 35 rail	57 x 179 x 163	77 x 179 x 171	128 x 205 x 171
Weight	1000 g	1300 g	2500 g
Standards/Specifications	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508	EN 60950, EN 61204-3, UL 60950, UL 508

^{**} D=127mm, without pluggable female connectors * pendi

EPSITRON® Communication Cable

PRO power supply devices feature an RS-232 interface. When paired with the 787-890 Communication Cable, the following devices can connect to a PC or PLC RS-232 interface:
Integrated LineMonitor (787-850, -852 and -854) ECBs (787-860,

-851, -862) UPS charger and controller (787-870, -875)



When combined with free software – download at **www.wago.com/epsitron** – users can easily set device parameters and perform diagnostics.

Technical Data



57 x 179 x 163

EN 60950, EN 61204-3,

UL 60950, UL 508

1000 g



128 x 205 x 171

EN 60950, EN 61204-3,

UL 60950, UL 508

2500 g

77 x 179 x 171

EN 60950, EN 61204-3,

UL 60950*, UL 508*

1300 g

EPSITRON® Wall Mount Adapter

77 x 179 x 171

EN 60950, EN 61204-3,

UL 60950, UL 508

1300 g

Wall mount adapter, for screw fixing of 787-8xx devices on mounting plate or wall without DIN 35 rail.

The wall mount adapter replaces the rail support of the 787-8xx device. The adapter is screwed to the 787-8xx device via provided screws.

128 x 205 x 171

EN 60950, EN 61204-3,

UL 60950, UL 508

2500 g

EPSITRON® CLASSIC Power

Robust Power Supply for Various Voltage Ranges

Electronics have various voltage and power requirements. A 12V, 24V or 48V DC source is often required, as is 30.5V, to supply AS-Interface networks. EPSITRON® CLASSIC Power Supplies featuring various output voltages are ideally suited for such applications. Single-phase CLASSIC Power devices with wide input voltage range provide output currents from 1.3A to 10A, making worldwide use possible when combined with available approvals.

All devices feature an output voltage adjustable via potentiometer along with clear status indication, allowing for power loss compensation. The clearly visible green display indicator (DC OK) makes start-up easy. CLASSIC Power devices with output power > 150W

also indicate an overcurrent or short-circuit with a red LED. The integrated constant current characteristic for output power > 40W permits start-up of capacitive loads.

Pluggable CAGE CLAMP® connections, a robust metal housing and up to 90% efficiency are additional advantages that make CLASSIC Power Supplies ideal for industrial use.







fine-stranded



Fast, Clearly Labeled Connections

CAGE CLAMP® Spring Pressure Connection Technology provides fast, vibration-free and maintenance-free termination of solid, finestranded or ferruled wires.

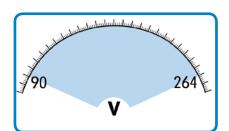


Clearly labeled, pluggable female connectors allow for easy cable pre-assembly.



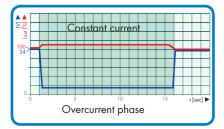
Compact and Easy to Mount

CLASSIC Power Supplies have a compact and robust DIN-rail mount metal housing. Mounting is simple, thanks to a readily accessible plate on the device.



Universal Supply

CLASSIC Power Supplies provide a wide input voltage range of 90 to 264VAC. This enables a mass-produced machine to be operated on different power networks in Europe, America or Asia without additional conversion or adjustment. This also increases power supply reliability if there are deviations from the rated voltage in the supply network. CLASSIC Power Supplies can also be supplied with DC power and be used as DC/DC converters. The CLASSIC Power also carries multiple approvals – ready for worldwide use.



High Load-Carrying Capacity •

Loads frequently have an increased need for current when switched on. Power supplies with constant current characteristics – such as the 24VDC and 48VDC CLASSIC Power devices with output power > 40W – deliver 1.1 times the nominal rated current with lowered output voltage. This makes them perfect for starting capacitive loads, for example.



Always Informed •

All CLASSIC Power Supplies have an operating indicator signaling the availability of the output voltage via green LED. Devices with output power > 150W also have an overcurrent indicator, indicated by a red LED.

This simplifies start-up and rapidly provides maintenance personal with system or machine status.

Finely Tuned Output

The longer the conductor and the smaller the cross-section, the greater the output resistance. To ensure the load has sufficient operating voltage, even at the end of long conductors with small cross-sections, power supply output voltages can be increased by up to 20%. Conversely, lowering the output voltage is also possible, which can reduce current consumption. The output voltage can be set using a screwdriver via potentiometer; this is accessible from the side or above the unit.



EPSITRON® CLASSIC Power:







	Item Number	787-601	787-611	787-621
	Nominal input voltage	100 - 240 VAC	100 - 240 VAC	100 - 240 VAC
	Input voltage range	90 - 264 VAC; 130 - 300 VDC	90 - 264 VAC; 130 - 300 VDC	90 - 264 VAC; 130 - 300 VDC
	Nominal output voltage	12 VDC	12 VDC	12 VDC
	Output voltage range	11 - 15 V	11 - 15 V	11 - 15 V
	Output current	2 A	4 A	8 A
١	Parallel connection	-	-	-
	Efficiency	78 % typ.	84 % typ.	85 % typ.
á	LED indication	LED green (DC OK)	LED green (DC OK)	LED green (DC OK)
	Ambient operating temperature	-10 °C +70 °C	-10 °C +70 °C	-10 °C +70 °C
	Dimensions (mm) W x H x D Height from upper-edge of DIN 35 rail	40 x 95 x 90	51 x 133 x 120	67 x 133 x 120
ī	Weight	300 g	690 g	890 g
	Standards/Specifications	EN 60950-1, EN 61204-3, EN 61204-7	EN 60950-1, EN 61204-3, EN 61204-7	EN 60950-1, EN 61204-3, EN 61204-7

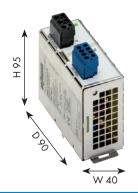






	Item Number	787-613	787-623	787-633
	Nominal input voltage	100 - 240 VAC	100 - 240 VAC	110 - 240 VAC
Ц	Input voltage range	90 - 264 VAC; 130 - 300 VDC	90 - 264 VAC; 130 - 300 VDC	85 - 264 VAC; 90 - 350 VDC
	Nominal output voltage	48 VDC	48 VDC	48 VDC
	Output voltage range	43.2 - 52.8 V	42 - 52.8 V	43.2 - 53.8 V
	Output current	1 A	2 A	5 A
	Parallel connection	yes	yes	yes
	Efficiency	85 % typ.	90 % typ.	89 % typ.
	LED indication	LED green (DC OK)	LED green (DC OK)	LED green (DC OK) LED red (overload)
	Ambient operating temperature	-10 °C +70 °C	-10 °C +70 °C	-10 °C +70 °C
	Dimensions (mm) W x H x D Height from upper-edge of DIN 35 rail	51 x 133 x 120	67 x 133 x 120	115 x 87 x 140
	Weight	600 g	800 g	940 g
	Standards/Specifications	EN 60950-1, EN 61204-3, EN 61204-7	EN 60950-1, EN 61204-3, EN 61204-7	EN 60950-1, EN 61204-3, EN 61204-7

Technical Data









787-602	787-612	787-622	787-632
100 - 240 VAC	100 - 240 VAC	100 - 240 VAC	110 - 230 VAC
90 - 264 VAC; 130 - 300 VDC	90 - 264 VAC; 130 - 300 VDC	90 - 264 VAC; 130 - 300 VDC	85 - 264 VAC; 90 - 350 VDC
24 VDC	24 VDC	24 VDC	24 VDC
21.6 - 26.4 V	22 - 28.8 V	22 - 28.8 V	22 - 28 V
1.3 A	2.5 A	5 A	10 A
-	yes	yes	yes
81 % typ.	88 % typ.	89 % typ.	88 % typ.
LED green (DC OK)	LED green (DC OK)	LED green (DC OK)	LED green (DC OK); LED red (overload)
-10 °C +70 °C	-10 °C +70 °C	-10 °C +70 °C	-10 °C +70 °C
40 x 95 x 90	51 x 133 x 120	67 x 133 x 120	115 x 87 x 140
300 g	690 g	890 g	1100 g
EN 60950-1, EN 61204-3, EN 61204-7 UL 60950, UL 508, CSA-C22.2 No. 107.1	EN 60950-1, EN 61204-3, EN 61204-7 UL 60950, UL 508, CSA-C22.2 No. 107.1	EN 60950-1, EN 61204-3, EN 61204-7 UL 60950, UL 508, CSA-C22.2 No. 107.1	EN 60950-1, EN 61204-3, EN 61204-7 UL 60950, UL 508



787-692

100 - 240 VAC

90 - 264 VAC; 130 - 300 VDC

30.5 VDC

28 - 33 V

3 A

89 % typ.

LED green (DC OK)

LED red (overload)

-10 °C ... +70 °C

51 x 133 x 120

600 g

EN 60950-1, EN 61204-3, EN 61204-7 UL 60950, UL 508



EPSITRON® COMPACT Power

Compact, High-Performance Power Supply in DIN-Rail Mount Enclosure

Installation depth is often restricted for both building and industrial applications. DIN 43880 specifies built-in equipment dimensions for installation in distribution and meter boards.

COMPACT Power Supplies meet these requirements with a height of just 55mm from upper-edge of carrier rail – width and profile also comply to this standard. WAGO's compact but powerful 787-10xx Power Supplies (30W, 60W and 100W) provide 12

and 24VDC output voltage. They offer protection class II and feature a wide input voltage range for use in different supply networks.

Front-panel status indication, maintenance-free CAGE CLAMP® connection, adjustable output voltage, constant current operation in case of overload, as well as overhead installation capability are only some of the benefits. Thus, WAGO's COMPACT Power Supplies allow distributed control systems to be supplied in flat distribution boxes or operator panels.



Fast and Safe Connection





fine-stranded



CAGE CLAMP® Spring Pressure Connection Technology provides fast, vibration-free and maintenance-free termination of solid, finestranded or ferruled wires.

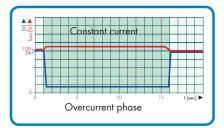
ilem Number	707-1001
Nominal input voltage	100 - 240 VAC
Input voltage range	85 - 264 VAC; 120 - 373 VDC
Nominal output voltage	12 VDC
Output voltage range	10.8 - 18 VDC, adjustable
Output current	2 A at 12 VDC / 0.75 A at 18 VDC max. 1.4 A (12 VDC) in any mounting position
Default setting	12 VDC
Overload behavior	Constant current, 1.1 x lo typ.
Operation status indicator	LED green (Vo)
Efficiency	80 % typ.
Ambient operating temperature	-25 °C +55 °C
Storage temperature	-25 °C +85 °C
Derating	-3 % / K (>45 °C)
Can be connected in parallel/series	yes
Type of mounting	DIN-rail mount (EN 60715)
Dimensions (mm) W x H x D Height from upper-edge of DIN 35 rail	54 x 59 x 89 Height: 55 mm, from upper-edge of DIN 35 rail
Weight	арргох. 170 g
Standards/Specifications	EN 60950 (SELV), EN 60204 (PELV), EN 61204-3, UL 60950, UL 508

 $^{^{**}}$ H: 55mm, from upper-edge of DIN 35 rail

†outreur

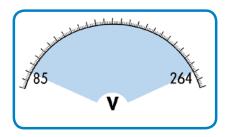
Clear Indication

All COMPACT Power Supplies indicate output voltage availability via green LED. This allows current operating status to be displayed at a glance.



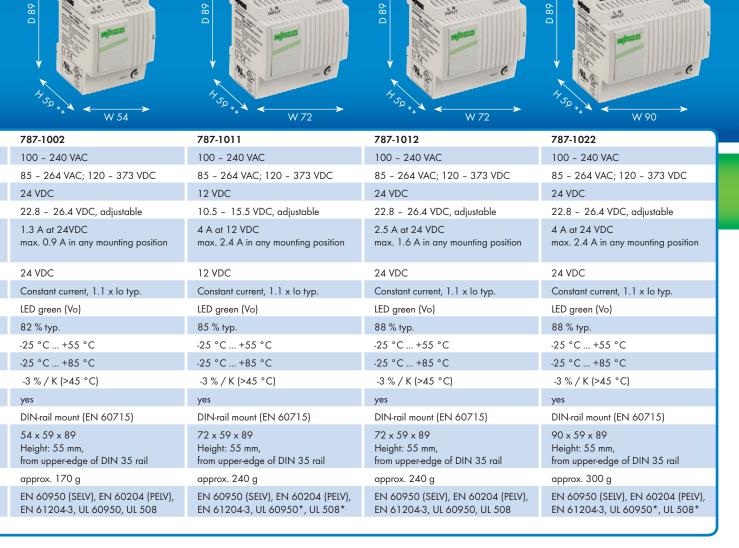
High-Performance •

To supply capacitive loads (e.g., distributed control units or HMI devices) with higher inrush current, WAGO's COMPACT Power Supplies feature constant current characteristic, while delivering 1.1 times the nominal rated current during overload. For low-ohm short circuits, the output voltage is reduced to zero and automatically reinstated once the short-circuit has been eliminated.



Tolerant Supply •

The wide range of input voltages of the COMPACT Power Supplies allows feeds of 85 to 264VAC so devices can operate on different supply networks in Europe, America or Asia without additional conversion or setting. This feature increases tolerance of voltage fluctuations within a supply network, increasing reliability.



EPSITRON® ECO Power

Economical Power Supply for Standard Applications

EPSITRON® ECO Power Supplies are an economical alternative for applications that simply require 24VDC without additional functions.

Packaged in a flat and solid metal housing, output currents of 2.5A, 5A or 10A are provided. ECO Power Supplies lower project and operating costs with advanced features including: LED status indication, front-panel adjustable output voltage, efficiency levels up to 82% and maintenance-free CAGE CLAMP® terminations.

24VDC output voltage, adjustable

CAGE CLAMP® connection technology

Open circuit and short-circuit protected

LED status indication

Wide input voltage range





fine-stranded



Fast and Safe Connection

CAGE CLAMP® Spring Pressure Connection Technology provides fast, vibration-free and maintenance-free termination of solid, finestranded or ferruled wires.



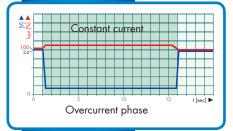
Fast Installation

ECO Power Supplies have a flat and very robust DIN-rail mount metal housing. Mounting is simple, thanks to a readily accessible plate on the device.



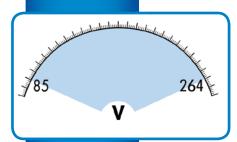
Clear Indication •

All ECO Power Supplies indicate output voltage availability via green LED. A red LED indicates an overvoltage. This simplifies start-up and rapidly provides maintenance personnel with system or machine status.



High Load-Carrying Capacity •

Loads frequently have an increased need for current when switched on. ECO Power Supplies with constant current characteristics deliver 1.1 times the nominal rated current with lowered output voltage. This makes them ideal for starting capacitive loads, for example. For low-ohm short circuits, the output voltage is reduced to zero and automatically reinstated once the short-circuit has been eliminated.



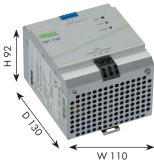
Tolerant Supply •

The wide range of input voltages of ECO Power Supplies allows feeds of 85 to 264VAC so mass-produced machines can operate on different supply networks in Europe, America or Asia without additional conversion or setting. This feature increases tolerance of voltage fluctuations within a supply network, increasing reliability.









	VV 50	VV 75	** 110
Item Number	787-712	787-722	787-732
Nominal input voltage	230 VAC	230 VAC	230 VAC
Input voltage range	85 - 264 VAC 130 - 373 VDC	85 - 264 VAC 130 - 373 VDC	85 - 264 VAC 130 - 373 VDC
Nominal output voltage	24 VDC	24 VDC	24 VDC
Output voltage range	22 - 28 VDC	22 - 28 VDC	22 - 28 VDC
Output current	2.5 A	5 A	10 A
Parallel connection, stabilized current characteristic	yes	yes	yes
Efficiency	82 % typ.	82 % typ.	82 % typ.
LED indication	LED green (DC OK) LED red (overload)	LED green (DC OK) LED red (overload)	LED green (DC OK) LED red (overload)
Ambient operating temperature	-10°C +70°C	-10°C +60°C	-10°C +60°C
Dimensions (mm) W x H x D Height from upper-edge of DIN 35 rail	50 x 92 x 130	75 x 92 x 130	110 x 92 x 130
Weight	470 g	740 g	1030 g
Standards/Specifications	EN 60950, EN 61000-6-2, EN 61000-6-3, UL 508, UL 60950, ANSI/ISA 12.12.01 (Class I Div.2)*	EN 60950, EN 61000-6-2, EN 61000-6-3, UL 508, UL 60950, ANSI/ISA 12.12.01 (Class I Div.2)*	EN 60950, EN 61000-6-2, EN 61000-6-3, UL 508, UL 60950, ANSI/ISA 12.12.01 (Class I Div.2)*

^{*} pending

EPSITRON® - Electronic Circuit Breakers

Primary switch mode power supplies provide a rapid response to overcurrent conditions on the output side, extending operating life. Selective protection of individual current paths on the secondary side via standard circuit breakers is often ineffective. This is the case when high-speed magnetic tripping is not performed via TopBoost, which is utilized by PRO Power Supplies.

Electronic circuit breakers provide selective protection for power supplies without TopBoost feature. Up to four current paths can be protected via 4 channels and an easy-to-adjust rated current. The short-circuit current is limited via an active current limiting circuit breaker, preventing voltage drop across adjacent current

paths. In addition to parameter setting, the display and serial interface control both the integrated fault memory and the instantaneous values of the output current and voltage. This provides proactive monitoring, fault diagnostics and energy monitoring.

Reliability via connectors equipped with CAGE CLAMP®**

Slim housing that's easy to mount on DIN-rail ***

4 current channels with adjustable rated current

Configurable isolated signal contact

Remote control input (787-860 and 787-862)

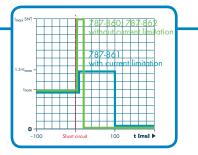
Configuration via display or software

Active short-circuit current limitation (787-861)

Adjustable tripping time, delayed switching-in of channels

Communication Cable

787-890 Communication Cable connects the RS-232 interface of the electronic circuit breaker with the RS-232 interface of the PC or PLC.



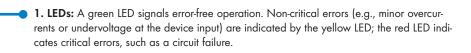
Trip Characteristics

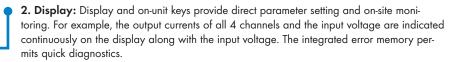
Rated currents can be set separately for each channel in 1A increments. In the event of an overcurrent, the affected channel will be shut down safely and reset per stored protection characteristic. The 787-861 Circuit Breaker provides active short-circuit current limitation to 1.5 times its rated current, preventing a voltage drop in one current path affecting others in the event of a short-circuit. Current path trip times may also be configured. Once a channel has been shut down, it can be reactivated via on-unit keys or by an impulse at the remote control input of the 787-860 or 787-862 Circuit Breakers.

787-862

- Fast, clearly labeled connections, see page 4
- ** Slim design and versatile mounting options, see page 4

Communicative and Easy to Adjust





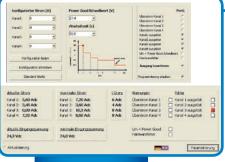
3. Active signal outputs/isolated contact: Four active signal outputs provide function monitoring and can be processed as a digital signal in the PLC. Signal output 1 of 787-860 and 787-862 Power Supplies is linked to an isolated signal contact. It can be user-defined via free 759-860 Configuration Software, e.g., to generate a group signal for triggered current paths.





787-862

3.45



Technical

Data:







Item Number	787-860	787-862	787-861
Description	Electronic circuit breaker	Electronic circuit breaker	Electronic circuit breaker
Nominal input voltage	24 VDC	24 VDC	24 VDC
Nominal output voltage	4 x 24 VDC	4 x 24 VDC	4 x 24 VDC
Nominal current	4 x 1 - 6 ADC (adjustable for each channel in 1A steps)	4 x 1 - 10 ADC (adjustable for each channel in 1A steps)	4 x 1 - 8 ADC (adjustable for each channel in 1A steps)
Voltage drop	120 mV at 6 A	240 mV at 10 A	240 mV at 8 A
Trip time	100 s (100 ms - 600 s; adjustable)	100 s (100 ms - 600 s; adjustable)	100 ms (100 ms - 1.5 s; adjustable, depending on rated current)
Switch-on capacity	max. 20,000 μF	max. 20,000 μF	max. 20,000 μF
Switch-on behavior	time-delayed channel switching (250 ms each)	time-delayed channel switching (250 ms each)	time-delayed channel switching (250 ms each)
Indicators	LED, LCD, 4 x signal output 24 VDC, 25 mA and 1 x isolated relay contact 60 VDC, 3 A	LED, LCD, 4 x signal output 24 VDC, 25 mA and 1 x isolated relay contact 60 VDC, 3 A	LED, LCD, 4 x signal output 24 VDC, 25 mA
Remote control input	Reactivation of all tripped channels via impulse	Reactivation of all tripped channels via impulse	
Short-circuit current limitation	-/-	-/-	1.5 x nominal current typ.
Ambient operating temperature	-10 °C +60 °C	-10 °C +60 °C	-10 °C +60 °C
Storage temperature	-25 °C +85 °C	-25 °C +85 °C	-25 °C +85 °C
Dimensions (mm) W x H x D*	40 x 163 x 171	40 x 163 x 171	40 x 163 x 171
Weight	800 g	800 g	800 g
Standards/Specifications	EN 60950, UL 60950, UL 508, EN 61000-6-2, EN 61000-6-3	EN 60950, UL 60950, UL 508, EN 61000-6-2, EN 61000-6-3	EN 60950, UL 60950, UL 508, EN 61000-6-2, EN 61000-6-3

 $^{^{\}star}$ H from upper-edge of DIN 35 rail; T=127mm, without pluggable female connectors

EPSITRON® – Reliable and Safe Uninterruptible Power Supply (UPS)

Unpredictable power failures are a nightmare for any machine or equipment operator. If a PLC is suddenly shut down due to a power failure, loss of production data (e.g., formulations or protocols) may follow. To prevent these losses, the Uninterruptible Power Supply, consisting of UPS charger and controller (787-870 or 787-875) and one or more connected batteries, reliably power the application for several hours

The charging voltage for the connected battery is temperature-controlled, significantly extending the battery's service life and minimizing maintenance costs. The UPS module supports a complete current and voltage monitoring while featuring numerous signaling options via display and RS-232 interface.

Reliability via connectors equipped with CAGE CLAMP®**

Slim housing that's easy to mount on DIN-rail ***

Temperature-controlled charging voltage

Three active signal outputs for watchdog functions

* Fast, clearly labeled connections, see page 4

 $\ensuremath{^{*\,*}}$ Slim design and versatile mounting options, see page 4

Configurable isolated signal contact

787-870

Configuration via display or software

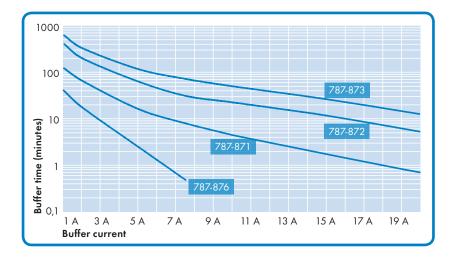


Technical Data:

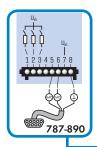
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	Item Number	787-870
	Description	UPS charger and controller
	Nominal input voltage	24 VDC
	Input current li	0.1 A (no-load running); 0.8 A (charging); 10.8 A (max.)
	Switch-on threshold (adjustable)	20 - 25.5 VDC
	Output voltage range	Vi - 1 VDC (below switch-on threshold); Battery voltage - 1 VDC (buffer mode)
ı	Output current lo	10 A
	Buffer time	10 - 600 s or constant (adjustable)
	End-of-charge voltage	26 - 29.5 VDC or temperature-controlled (adjustable)
	Indicators	LED, LCD, 3 x signal output 24 VDC 25 mA and 1 x isolated relay contact
	Remote input	Switches buffer mode off
	Ambient operating temperature	-10 °C +60 °C
ı	Storage temperature	-25 °C +85 °C
	Dimensions (mm) W x H x D *	40 x 163 x 163
	Weight	0.8 kg
	Standards/Specifications	EN 60950, UL 60950, UL 508, EN 61000-6-2,

EN 61000-6-3

Buffer Time vs. Load Current



Communicative and Easy to Adjust



787-875



1. LEDs: A green LED signals error-free operation. Non-critical errors are indicated as warnings by the yellow LED; the red LED indicates critical errors.

2. Display: All currents and voltages are indicated continuously on the display. Important parameter settings can be easily performed via on-unit keys. The device features integrated fault memory for self-diagnostics in the event of errors.



787-876

3. Signal outputs: The function monitoring has three active signal outputs that can be processed as a digital signal and one isolated signal contact coupled with signal output 1. It can be user-defined (e.g., as a group error signal) via free 759-870 Configuration Software available at www.wago.com/epsitron.

4. RS-232 serial interface: This interface allows the UPS charger and controller to communicate with a PC or PLC. In addition to the visualization of relevant data, it also provides reaction to errors. Parameter setting can also be easily performed via this interface. The 787-890 Serial Communication Cable is available as an accessory for connection to the RS-232 interface.

787-872

787-873



787-871

		, 0, 0, 1		
UPS charger and controller	Lead-acid AGM battery module			
24 VDC	24 VDC	24 VDC	24 VDC	24 VDC
0.1 A (no-load running); 1.5 A (charging); 21.5 A (max.)	max. 0.3 A	max. 0.8 A	max. 1.8 A	max. 3 A
20 - 25.5 VDC				
Vi - 1 VDC (below switch-on threshold); Battery voltage - 1 VDC (buffer mode)	24 VDC	24 VDC	24 VDC	24 VDC
20 A	max. 7.5 A	20 A	Max. 21 A	Max. 21 A
10 – 600 s or constant (adjustable)	Capacity: 1.2 Ah	Capacity: 3.2 Ah	Capacity: 7 Ah	Capacity: 12 Ah
26 - 29.5 VDC or temperature-controlled (adjustable)	27 VDC (at 25 °C)			
LCD, 3 x signal output 24 VDC, 25 mA and 1x isolated relay contact	NTC K164 temperature sensor (4.7 kOhm)			
Switches buffer mode off				
-10 °C +60 °C	-10 °C +40 °C	-10 °C +40 °C	-10 °C +40 °C	-10 °C +40 °C
-25 °C +85 °C	-20 °C +40 °C	-20 °C +40 °C	-20 °C +40 °C	-20 °C +40 °C
57 x 163 x 171	55 x 126 x 153 incl. female connector	76.2 x 165 x 175.5	86 x 236 x 217.5	120.5 × 236 × 217.5
1.2 kg	approx. 1.8 kg	4.2 kg	6.5 kg	10.6 kg
EN 60950, UL 60950, UL 508, EN 61000-6-2, EN 61000-6-3	Battery is tested to VdS			
				and the second s

^{*} H from upper-edge of DIN 35 rail; T=127mm, without pluggable female connectors (787-870 and 787-875 only)

EPSITRON® - Capacitive Buffer Modules

Brief power supply failures jeopardize the trouble-free operation of machines/systems. The power supply buffer times of select applications can be considerably extended via capacitive buffer modules. These modules have power reserves that may be required when starting heavy loads or triggering a fuse. The 787-880 and 787-881 Buffer Modules contain completely maintenance-free "gold"

caps" that store energy and provide output power for 400ms. Buffer times up to several seconds can be easily achieved by connecting the modules in parallel or adjusting the output current.

Integrated diodes for decoupling buffered loads from unbuffered loads

Electronic overcurrent and short circuit protection



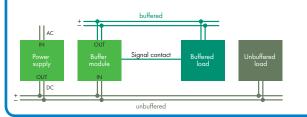
Parallel-connections possible

Configurable switch-on threshold

Maintenance-free, high-energy gold caps

Decoupled Output

Multiple buffer modules can be readily parallel-connected to increase buffer time or load current. The module outputs are decoupled from the inputs, making it possible to specifically buffer just selected consumers.







Indicators:

- 1. LEDs: There are 3 LEDs to signal individual operating conditions. The green LED indicates error-free operation. The red LED indicates undervoltage at the buffered module output; a yellow LED signals module charging.
- 2. Isolated signal contact: Once the internal charging procedure is complete and there is sufficient voltage at the buffer module input, the isolated signal output is activated. The contact is deactivated as soon as the module runs out of charge and the control level can respond to this change of state.

Technical Data:

Item Number	787-880	787-881
Description	Capacitive buffer module	Capacitive buffer module
Nominal input voltage Vi	24 VDC	24 VDC
Input current li	60 mA (no-load running); 1 A (charging); 11 A (max.)	60 mA (no-load running); 1 A (charging); 22 A (max.)
Charging time	typ. 5 minutes	typ. 5 minutes
Switch-on threshold (adjustable)	20 - 24 VDC	20 - 24 VDC
Output voltage range	Vi - 1 VDC (below switch-on threshold); 20.4 - 24 VDC (buffer mode)	Vi - 1 VDC (below switch-on threshold); 20.4 - 24 VDC (buffer mode)
Output current lo	10 A	20 A
Buffer time	0.06 - 7.2 s (depending on load current and switch-on threshold)	0.17 - 16.5 s (depending on load current and switch-on threshold)
Parallel-connections possible	yes	yes
Indicators	LED; isolated relay contact	LED; isolated relay contact
Ambient operating temperature	-10 °C +50 °C	-10 °C +50 °C
Storage temperature	-10 °C +60 °C	-10 °C +60 °C
Dimensions (mm) W x H x D**	57 x 179 x 163	57 x 179 x 181
Weight	1.0 kg	1.0 kg
Standards/Specifications	EN 60950, EN 61000-6-2, EN 61000-6-3, UL 508*	EN 60950, EN 61000-6-2, EN 61000-6-3, UL 508*

^{**} H from upper-edge of DIN 35 rail; D=127mm, without pluggable female connectors

^{*} pending

EPSITRON® - Redundancy Module

The 787-885 Redundancy Module contains two high-performance diodes with 20A capacity and decouples two parallel-connected power supplies. With the connection of two equal power supplies, the availability of the machine or system is assured, or the load current is doubled.

The possible failure of a power supply is indicated reliably via LED and an isolated contact. With the use of the redundancy module to increase availability, for example, it is possible to change out live devices without creating downtime.

Indicators:

1. LEDs: The green LED lights up to indicate sufficient voltage at the module output. Each of the two yellow LEDs is assigned to a connected power supply and illuminates to indicate failure.

2. Isolated signal contact:

The integrated relay's changeover contacts report the operating status of connected power supplies. During normal operation, the relay is active; it will eject in the event of a power supply failure.



Two integrated power diodes, input current 2 x 20A typ. or together max. 40A

Parallel-connections possible

Reverse polarity protection





Technical Data:

	11 40	,, ,,
Item Number	787-885	787-886
Description	Redundancy module	Redundancy module
Nominal input voltage V _i	24 VDC	2 x 48 VDC
Input current I _i	2 x 20 A, together max. 40 A	2 x 20 A, together max. 1 x 40 A
Nominal output voltage V _{o nom}	24 VDC	48 VDC
Output current I _o	20 A, max. 40 A	20 A, max. 40 A
Efficiency	97 % typ.	96 % typ.
Power loss P _v	1.5 W (no load) / 14 W (rated load 20 A) / 26 W (rated load 40 A)	1.7 W (no load) / 20 W (rated load 20 A) / 40 W (rated load 40 A)
Indicators	LED; isolated relay contact	LED; isolated relay contact
Ambient operating temperature	-10 °C +60 °C	-10 °C +60 °C
Storage temperature	-25 °C +85 °C	-25 °C +85 °C
Dimensions (mm) W x H x D**	40 x 163 x 181	40 x 163 x 181
Weight	0.8 kg	0.8 kg
Standards/Specifications	EN 60950, UL 60950, UL 508, EN 61000-6-2, EN 61000-6-3	EN 60950, UL 60950, UL 508, EN 61000-6-2, EN 61000-6-3

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